

## CLAIMS

1. A negative electrode material for non-aqueous electrolyte secondary batteries, comprising: a carbon material having a sphericity of at least 0.8, and exhibiting an average (002) interlayer spacing  $d_{002}$  of 0.365 - 0.400 nm, a crystallite size in a c-axis direction  $L_{c(002)}$  of 1.0 - 3.0 nm,  
5 as measured by X-ray diffractometry, a hydrogen-to-carbon atomic ratio (H/C) of at most 0.1 as measured by elementary analysis, and an average particle size  $Dv_{50}$  of 1 - 20  $\mu\text{m}$ .
- 10 2. A negative electrode material according to claim 1, comprising a carbonization product of a vinyl resin.
3. A negative electrode material according to claim 1 or 2, having a bulk specific gravity of at least 0.40 and below 0.60.
- 15 4. A negative electrode material according to any one of claims 1-3, having a ratio  $D_4/D_1$  of at most 3.0 between a weight-average particle size  $D_4$  and a length average particle size  $D_1$ .
- 20 5. A negative electrode material according to any one of claims 1-4, having a product of a specific surface area  $S$  ( $\text{m}^2/\text{g}$ ) and an average particle size  $Dv_{50}$  ( $\mu\text{m}$ ) of 3 - 40.
6. A negative electrode material according to any one of claims 1-5,  
25 exhibiting an exothermic peak temperature of at least 600°C.
7. A negative electrode material according to any one of claims 1-6,

comprising a surface of the carbon material coated with 0.1 - 10 wt.% of a silicon compound .

8. A negative electrode material according to any one of claims 1-7,  
5 containing 0.5 - 5 wt.% of nitrogen.

9. A process for producing a negative electrode material for non-aqueous electrolyte secondary batteries according to any one of claims 1-8, comprising; oxidizing a spherical vinyl resin obtained  
10 through suspension polymerization to oxidation at a temperature of 150 - 400°C in an oxidizing gas atmosphere to provide a carbon precursor and carbonizing the carbon precursor in an inert gas atmosphere.

10. A negative electrode for non-aqueous electrolyte secondary  
15 batteries, having a layer of active substance comprising a negative electrode material according to any one of claims 1-8 and formed at a coating rate of at most 60 g/m<sup>2</sup>.

11. A non-aqueous electrolyte secondary battery having a negative  
20 electrode according to claim 10.